Understanding Marketing Challenges along Grapes Value Chain in Central Areas of Tanzania

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Abstract

Grapes are the fruits with diversified benefits and livelihood impacts. Actors of its value chain are faced with various constraints, despite the potentiality of the crop. However, there is limited knowledge about market challenges subjecting grapes farmers and other marketing actors along the value chain. This study attempts to explore the foremost marketing challenges faced by grapes farmers in central areas of Tanzania hence they fail to cater the local market posed by winery companies available in the region. A multi-stage sampling method was used to randomly select a total of 132 grapes farmers and other market intermediaries. These farmers reported to have limited knowledge hence facing the challenges related to potential market environments and how they can exploit available market opportunities. Actors have poor entrepreneurial skills, subjected with high transaction costs with unsatisfactory market linkages. The study recommends grape growers collective actions through groups and the government, and other actors to put in place the necessary investment environment conditions for mutual benefits of grapes value chain stakeholders’ e.i Growing the right grape as per the market requirement with right volume and investment on sophisticated storage technology to reduce post-harvest loses.

Keywords: Grape, Market Challenges, Market Intermediaries, Investment Conditions, Tanzania.

I. Introduction

Grapes are among the world produced cash crops, with various livelihood benefits and contributions in the stipulation of phytonutrients. The fruit is very useful to the human body, including the cardiovascular benefit and it has cancer chemo preventive activity, particularly for the skin (Suresh and Krishnamurthy, 2012). Based on recent Food and Agriculture Organization Statistics of 2018, the leading grape producing countries in the World are Italy, USA and France. In Africa, South Africa is a leading producer followed by Tanzania. In Tanzania, grapes were once established in central zone area – Dodoma Region in the 1970’s as an important cash crop and stimulated by existence of Dodoma Wine Company (DOWICO) which was established in earlier 1970’s and the initiatives by Ministry of Agriculture (Rewelamila et al., 2015).

As a non-climatic fruit crop with multiple uses, grape production can secure livelihood of many farmers in Dodoma Region, given the increased poverty in the Region (Graef et al., 2014). According to SNV Tanzania’s report on fresh fruits (2005), Dodoma Urban and Dodoma Rural produce 70% and 30% of grapes produce respectively.

The mounting significance of grapes to the society is reflected in the farmers’ tendency to replace other crops, particularly food crops such as sorghum and millet, with grapes (Christopher, 2014). However, the survival of smallholder and emerging farmers in the market is at stake. For instance, apprehensions and ability to take advantage of promising opportunities within the sub-sector have already been raised (Kherallah and Kirsten, 2001). Moreover, little was known about marketing constraints facing grapes growers and
other marketing actors (Lwelamira et al., 2015). In this regard, the current study has been designed to explore the main marketing challenges faced by grapes farmers in Dodoma, Tanzania, hence failure to meet local market demand and potential market posed by East Africa Countries.

ii. Findings and Discussion

3.1 Characteristics of market intermediaries
Distribution of grapes growers and other market intermediaries has essential social repercussion to the performance of the crop value chain as well as market system. Some of these distributions are in terms of sex, education level, activity experience and household size. For instance, majority of respondents interviewed were males. This group of farmers reported to have a vast control of marketing activities and decision on how grapes related earning can be spent. As for local grapes retailers almost, all were females with an average of household size of five. Moreover, most of commodity market agents had less than six (6) years of experience in their corresponding activities, such as production, processing, distribution and marketing. For instance, about 23% of contacted producers have been producing and selling grape for five (5) years or less, while 8% had more than 20 years in grapes farming. This indicates that many farmers who were engaged in grapes production had joined the industry lately as the crop has recently gained importance. Hence, these results translate presence of little experience in grapes trading and therefore were too well position to handle the challenges related to marketing of grapes produce.

Working population and labour sources associated with grapes production and marketing can be determined using household size. Based on field data, 22% and 33% of respondents had an average of five (5) and four (4) household members in their families respectively. These members of the families revealed to play a great role and provide a significant amount of labor required on farming activities. This is not surprising as the related roles of household members on farming reported to be vital (REWELAMILA ET AL., 2015).

3.2 Market constraints and grapes value chain dynamics
Crops commodity markets and agricultural marketing in Tanzania has been subjected to numerous challenges, such as inadequate access to prime markets, insufficient market information, limited access to finance to support market activities, incapacity of agricultural marketing institutions, poor entrepreneurial skills, inadequate awareness of specific product standards and quality requirements, high transaction costs, poor coordination and integration of marketing channels and policy uncertainties (Asche et al., 2012; Eskola, 2005; MAFAP, 2013). Some of the mentioned challenges were also reported by grapes market intermediaries interviewed.

3.2.1 Post-harvest losses and perishability
Grapes like most of other horticultural crops are bulkier and perishable. It wasn’t surprising for this type of a market challenge to be rated very high as a crucial element that need further attention (Figure 1). These two characteristics greatly affect its physical and post-harvest handling. Perishability tendencies of the product directly govern the marketing system of that product. However, what matters most is the rate of deterioration. Fresh grapes must move into consumption very promptly if their value is to be maintained because they deteriorate faster than other products, particularly in hot and humid climates. It has been reported by grapes market intermediaries that, during the production peak season most farmers sell their produce because they ripe so fast. Not only that but also, lack of cold storage facilities in rural areas increase the rate of post-harvest losses sometimes the loss reach 20% and beyond hence actors get less returns. As it is happening in other countries like Pakistan (AUJLA ET AL., 2011), most of post-harvest losses occur when the grapes are leaving the farm and reaching consumers. Thus, grapes market intermediaries and other stakeholders should find the way of addressing crop perishability and post-harvest losses associated with package materials, storage and handling and transportation.

3.2.2 Price volatility and market structure
Erratic fluctuation of grapes prices in the market is the rule not the exception since prices depends on quantity available in the market at the particular time and the quantity available, on the other hand is governed by factors largely beyond the control of the market intermediary; for example, quantity supplied in the market, number of buyers available and others. It has been reported from the study that most of market agents perform informal market surveys, including knowing the prevailing grapes prices on a particular period of time (Figure 1). However, they can’t influence market prices due to their less market power. In this regard, most of farmers and other grapes market agents tend to fetch low prices during harvest as the fruits are perishable and they lack cold storage facilities hence can’t manage to forego sales during harvest. Most of farmers do harvest their produce on the more or less the same period and markets flooded with fruits especially for period peak season of December to March were.

Whereby, a range of values from 0–1 represents “very important”, 1–2 represents “important”, 2–3 represents “not sure”, and 3–4 represents “not important”.

3.2.3 Poor transportation and handling facilities
Available poor transport facilities supported with unpleasant grapes handling tools make the marketing activities of the crop being challenging hence detrimentally affect the whole value chain. This specific market challenge was reported as an important one to taken into consideration (Figure 1). Inefficiency of the grape value chain is also affected by high transport costs hence actors can’t exploit local niche and international markets. The study revealed that, there is a good market for grapes in East African member countries particularly Kenya but most of grapes market intermediaries can’t afford higher transportation cost and other handling requirements. They end up with selling to brokers at farm gate price which are not profitable. This is not a surprise as reported by Machethe (2004) in his study and noted that, physical infrastructure including communication links, storage facilities, and roads are prerequisites to market access, particularly to those potential market away from rural areas. Thus, inadequate physical infrastructure in rural areas of Tanzania remains a major obstacle to smallholder agricultural growth and market accessibility.

3.2.4 Credits and financial constraints
The unique features of the grapes farming make it fairly unattractive for lending by commercial banks. As mentioned above and Figure 1, marketing grapes produces is faced by various post-harvest challenges hence make it be unpredictable in terms of sales hence having certain returns. Credits facilities are fairly needed by grapes value chain actors (Figure 1). It has been reported by other scholars that, arguably it remains tricky and risky for the existing financial institutions to extend financial services to the agricultural sector and other risks are associated with poor credit recovery (Amani, 2005). There is limited knowledge on sustainable and development oriented borrowing practices and insurance schemes compounds the inadequate financing in the sector (Musemwa et al., 2008; Oguonu and Ezeibe, 2014). Sometime these constraints can hinder
farmers to adopt improved technologies (Yadav et al., 2013); hence performance of market channels can be jeopardized (Mmasa et al., 2013). Moreover, it is rather expensive for lenders to manage loans scattered across so a multitude of small scale farmer otherwise if they are operating in groups or farmer. Credit constraints and other conditions should be removed and improved to sustain and increase efficiency of grapes market intermediaries.

3.2.5 Inadequate support from other stakeholders

Despite its establishment on 1978 for undertaking research for the benefit of farmers, the Viniculture Research and Training Centre (VRTC) which is based at Dodoma region also aimed at developing improved plants and conduct necessary trainings in viticulture for farmers and extension officers but still the government support to the centre is very limited. For instance, provision of farm inputs subsides as well as finding profitable market of grapes reported to be a challenge. Moreover, the centre can also influence policy related issues as far the grapes marketing is concerned. The Tanzanian government should increase its support on research within leading agricultural crops. Research centers should also strengthen their human, physical and financial resources and their monitoring and evaluations systems for performing their roles better (Mwinuka, 2014).

3.2.6 Insufficient of reliable market information sources

It has been argued that information diffusion accelerates agricultural development by facilitating knowledge management. Farmers can take full advantages of Information Communication Technology (ICT) to enhance productivity hence generate more income by adopting new technologies, including new seeds varieties, value addition and marketing their product. According to Asenso-Okyere and Mekonnen (2012), ICTs can improve agricultural extension services and education of a country. Whereby, inadequate number of extension staff in Tanzania can easily be tackled with availability of ICTs. Figure 2 presented the observation from the study area Almost 72% of grapes market intermediaries used to receive different forms of market information.

Figure 2: Meeting quality grades, market and extension services scope

Information (Figure 2), however, the type of information reported to be not reliable. Sometimes they tend to receive information from incredible sources and misleading information from buyers particularly prevailing prices. Information flow to smallholder farmers can be improved hence connect people in rural areas through various means such as: using innovative community radio and television programs; mobile phones in combination with radio; video shows, web portals, information kiosks, rural tele-centers, farmer call centers and many others (Perumal and Bakar, 2011). Though, it is very important to know willingness of farmers and have a secure ICT means (Martey et al., 2014; Sridhar et al., 2012). Through these, smallholders will be getting various information such as market prices (market access) for different agriculture commodities, weather forecasts, transport related information and other advices related to crop/livestock diseases (Gakuru et al.,2009).In Tanzania, there are number of initiatives which are ICT-based, whereby, some provide not only market and non-market information but also other extension services especially financial. Some of them are the use of M-PESA, TigoPesa, Airtel Money and...
Sim-Banking which are likely to support smallholder farmers for enhancing their livelihood security in rural areas. Furthermore, as a country, Tanzania can learn a lot from other initiatives which have been succeeded in other countries and improve the scope of extension services and education (Figure 2).

3.2.7 Relatively poor quality grade of the marketed produce
Low quality of farmer’s produce used to have detrimental impact on the efficiency and performance of commodity value chain hence it is disincentive to farmers (Mwinuka and Maro, 2013). Figure 2 shows that 84% of grapes market agents interviewed had challenges on meeting the quality of grapes required by customers. In most cases, grapes which are not fresh and deformed are the ones treated with poor quality. This has been associated with many factors including the type of seed varieties grown by the farmers and post-harvest losses after harvest and during fruits handling before sell. Failing to meet the required quality standard, commodity agents end-up by selling their grapes at lower prices as compared to the prevailing market price. For example, the actual value of fresh grapes was Tanzanian Shillings (Tsh) 1,200 per kilogram, but poor quality grapes fetched a price of Tsh 750/500 per kilogram. With the aid of “Likert” scale representing intensity of constraints faced by grapes value chain actors’ perishability was reported to be a challenge and it had direct impact in grapes quality. As shown using Figure 2, inadequate support from other stakeholders including government; price instability; post-harvest losses; credits constraints and inadequate of market information reported to be serious challenges to farmers and other value chain players. Number of grapes farmers is growing in Tanzania (Rewelamila et al., 2015), thus, special attention must be paid to all value chain activities including uses of better seeds and production practices; careful harvesting and handling; proper packaging; transportation and selling grapes through feasible market mechanisms locally and/or internationally.

3.3 Grapes value chain and market opportunities
Based on key informants’ interviews, currently wine and spirits beverages made from the Dodoma grapes are exported to various countries, such as DRC, Kenya, Uganda, South Sudan, and US. This indicates that, grapes value chain can be more beneficial to supply chain players and it can be expanded to not only other countries but also linked to other related beverages value chains, for instance, wine and spirits. Grapes market intermediaries should be ready to grab these promising market opportunities. However, smallholder farmers should increase their level of production in terms of quantity and quality for efficiency and better performance of other activities in the commodity market. Higher level of production can satisfy both domestic and export markets (Mwinuka and Mlay, 2015; Poulton et al., 2006). All necessary conditions and investment environment should be in place through public-private partnership for mutual benefits of all grapes value chain stakeholders.

Soils in Dodoma are generally perceived to be rich in micronutrients due to limited leaching. In the study area, soil fertility varies spatially for different soil types, such as sandy, reddish and clayey. The reddish is locally regarded to be more fertile than other soil typologies and favorable for drought resistant crops. In this regard, the soil within the Region favors production of grapes. The study area was purposely selected since the crop is grown only in Dodoma Region and most performing wards are Makutupora, Mbabala and Mpunguzi. The sub-sector seems to be beneficial to most of actors along the value chain, however, further improvements are needed (Kalimang’asi et al., 2014; Lwelamira et
al., 2015). Despite of favorable and supportive environmental condition for grapes farming in Dodoma, still smallholder grapes farmers fail to exploit the available marketing opportunities posed by winery processing companies available in the region and promising market from East African countries.

2.2 Data, research design and sampling

Both primary and secondary data were collected and used in the study. Secondary data were mainly collected from the Vineyard Research and Training Institute at Makutupora center and was used to support the discussions. Cross-sectional research design was employed for the study as it was vital to have data collected once and at the same time compared across the respondents on their access to market and how they tackle marketing challenges they are facing. Questionnaire with both closed and open-ended questions, checklist and interviews were main data collection tools and methods used. Employed interviews allowed deeper discussions and probing with respondents, while questionnaires were convenient in addressing the timeframe limitation of the study. Moreover, questions were structured based on the grapes actors along the value chain who were main respondents. Multi-stage sampling method was employed since it is difficult to get sampling frame hence it uses consecutive systematic stages to reach targeted respondents. At the first stage, study area was selected purposively, whereby, grapes are grown solely in Dodoma and three most productive wards were selected at this stage. Secondly, proportionate stratification sampling method was used to map key actors along the grapes value chain. Then, sample of 132 grapes market agents was selected randomly at the third stage. Whereby a large segment of the sample (109) occupied by farmers who are majority and the rest were market intermediaries (Aujla et al., 2011). Thus, other actors, such as traders, transporters and wine companies along the chain were treated as key informants hence consolidate on the data and findings of the study. The respondents were selected based on the richness of the information.

2.3 Data analysis and presentation

The data and information obtained from the survey was subjected to analysis using mainly descriptive statistics, and so the Statistical Package for Social Sciences (SPSS) was used. Targeted study variables guide the analysis and value labels were emanated from the responses of the closed questions. Moreover, analysis of the constraints related to grapes marketing were done with the aid of “Likert” scales ranging from one (1) to four (4) showing intensity and likely impact of the respective challenge. The scales show the level of respondent’s compliance given the nature of the market challenge. Thus, the scale of 1 represents the perception that the specific market challenge is considered to be “very important”, 2 represents “important”, 3 represents “not sure” and 4 represents “not important”.

v. Conclusion and Recommendation

The paper attempts to present marketing challenges along the grapes value chain in Tanzania. It was revealed from the paper findings that the main grapes value chain constraints are as follows: insufficient market information, limited access to credit to support market activities and post-harvest losses. On the basis of this, researchers have managed to come out with corresponding recommendations to address these constrains for the improving all necessary activities of the commodity market. Grapes smallholder farmers should be operating in groups for managing collective action. Being in groups can easily facilitate inputs and output market linkages. Moreover, growing improved seeds and following best production practices can improve grapes productivity and increase performance of the value chain through better prices and markets. Attention should be paid by farmers and other actors of the chain for adequately address the pre-harvest and post-harvest challenges for boosting profit. Grapes perishability and post-harvest losses associated with package materials, storage and handling, market information and transportation should be addressed. The government should strengthen research centers in terms of their human, physical and financial resources and their monitoring and evaluations systems for performing their roles.
vi. References


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